



Overview

Retrofit Kit (RK) replaces existing relay panel electronics. RK installation retains the original relays, line voltage wire, conduit, and enclosure reducing labor as well as material cost. Retrofit Kit 3 (RK3) is designed to convert existing relay panels which utilize 3-Wire relays. The kit includes a Controller Board, up to four 16-Relay Interface Boards (RIB), and ribbon cables. Each board is mounted on a single aluminum plate for installation.

Features

Compatible with :

- General Electric Panels (RR7)
- Horton Controls Panels (RR7)
- WattStopper Panels (RR7)
- Lithonia Lighting Panels (RR7)
- Triatek L2500 Panels (RR7)
- ILC Panels (2R7)

Available in 16, 32, 48, and 64 relay capacities

Retains relays, line voltage wire, conduit, and enclosure

BACnet MS/TP communication to BAS network

Sub network for Satellite and Capacitive Touch Stations (CTS)

Install in less than 4 hours

Available PT3 3-Wire Relay Interface Pigtail

General Specifications

Construction: PCB's mounted to 14ga aluminum plates

Dimensions:

Controller Board: 11.00"(279mm)H x 4.50"(113mm)W x 1.50"(38mm)D

RIB: 9.88"(251mm)H x 2.13"(113mm)W x 1.13"(29mm)D

20pin Ribbon Cable: 48"(1219mm)L

Weight: 2lbs(1kg)

Mounting: Panel back plate with self-tapping screws (not included)

Operating Environment: 32-125°F (0-50°C), 20-95%RH, non-condensing

Certifications

Electronics meet or exceed IEC Level 3

CEC Title 24

Warranty

Two (2) year limited manufacturer warranty from date of shipment (extended warranty optional).

Firmware Specifications (Controller Board)

Platform: Aperio Open Control Platform

Time Clock: Real-time clock with BACnet time sync

Schedule: BACnet Schedule, Monday – Sunday, Holidays, and Exceptions

Non-Volatile Memory: 16MB total, 2MB for trend data (15min trend requires 2K per day)

RAM: 2MB total, data stored in non-volatile memory upon power loss

Configuration: Tech Kit 2.0 (see data sheet for details)

Configuration Connection: Micro-B USB or Bluetooth Wireless

Low Voltage Specifications (Controller Board)

Power In: 24VAC +/-10%, 30VA, 50-60 Hz

Auxiliary Out: 24VAC, 800mA (devices with full wave rectified power supply only)

Universal Input (UI) and Satellite / Station Network Power Out: 24VDC, 200mA total

Universal Input: 24 two-wire inputs

Universal Input Software Configuration:

Digital Input (DI)

Analog Input (AI): 0-5VDC, 0-10VDC, or 4-20mA

Universal Input Wire Requirement / Maximum Length: 18AWG (Solid or Stranded) / 500'(152m)

BAS Network Specifications

Protocol: BACnet MS/TP

Baud Rate: DIP switch selectable 9.6K, 19.2K, 38.4K, 76.8K, or 115.2K

Device Profile: BACnet Advance Application Controller (AAC)

Address Range: 1 – 99 selectable with rotary dials

Unit Load: 1/8 unit load

Topology: RS-485, half duplex, daisy chain wiring

Wire Requirement / Maximum Length: CL3P, 22AWG, 2 conductor, shielded, low cap / 4000'(1216m)

Points: See *PIC Statement*

Satellite / Station Network Specifications

Compatible with CTS and Satellite devices. See data sheet for details.

RIB Specifications

RIB-A: 16 relay outputs each, drives relays 1-16 and 33-48

RIB-B: 16 relay outputs each, drives relays 17-32 and 49-64

Relay Output Rating: 24VDC ON pulse (Red), OFF pulse (Black)

Relay Output Compatibility: 1 RR7 or equal per, no external power / switches

Relay Output Connection: 5 pin header, keyed for PT3 3-Wire Relay Interface Pigtail connection

Wire Requirement / Maximum Length: 18AWG / 50'(15m)

Optional Equipment Specifications

PT3 3-Wire Relay Interface Pigtail:

Description: 18"(457mm)L, 18AWG, 3-wire

Pin/Color Code: 1/Unused, 2/Unused, 3/Black, 4/Red, 5/Blue

RIB Connection: Keyed 5pin plug-on connector

Relay Connection: 3 Insulation Displacement Connectors (IDC), 22-16AWG, UL Listed

